V.2 Surcharge-Funded Production Credit Proposal

A. Surcharge Distributed As A Production Credit

Proposal Submitted by: Cambrian Energy Development LLC, Environmental Defense Fund, Genesis Energy Systems, Laidlaw Gas Recovery Systems, LA Sanitation District, NEO Corp., Orange County, City of Sacramento, Sonoma County, San Diego Gas & Electric, Pacific Gas and Electric, Southern California Edison

1. Interpretation Of Commission's Goals And Rationale For Strategy

In D. 95-12-063 the Commission stated:

> "We are committed to establishing restructuring policies which maintain California's resource diversity for existing resources as well as encourage development of new renewable resources." (p. 147)
>
> "We continue to believe that a minimum renewables purchase requirement is the best approach to meet our resource diversity goals.....We have not concluded at this time on whom this obligation should be placed. We hope that the Working Group will provide us with further guidance on this, and will address this question further as we implement this decision....We prefer that the requirement be set at the same level for all electric utilities on a statewide basis, but recognize that it may be appropriate to develop a transitional strategy given the current resource portfolios of some utilities....We would expect that these minimum renewables levels would be in place beginning in 1998 and continuing through 2000, at which point we would revisit whether the requirement should be modified." (p. 150)

In summary the sponsors believe this Proposal meets the Commission's objectives because the Proposal:

1. Surcharge funds could be collected on a "pay-as-you-go basis"
2. Surcharge funds could be collected up-front, to cover the 10-year obligation to provide production credits.
3. Surcharge funds could be collected partially up-front.

Table 2 illustrates these options, using the payment pattern shown in Table 1 as a basis for the illustration:

Table 2
Illustration of Options for Collection of Surcharge Funds

	Pay as you go	Up-front collection*	Partially up-front*
1998	20	200	100
1999	40	200	100
2000	60	200	100
2001	80	200	100
2002	100	200	100
2003	100		100
2004	100		100
2005	100		100
2006	100		100
2007	100		100
2008	80		
2009	60		
2010	40		
2011	20		
Total	1000	1000	1000

*Ignoring interest on undistributed balances

In each case the total amount of funds collected (Table 2) equals the total amount of funds distributed (Table 1) – $1 billion. Table 2 simply shows different time-patterns for collecting the funds.

The first column of Table 2 illustrates the pay-as-you-go option. In this option surcharge funds are only collected as they are needed.

The second column illustrates the up-front collection option. In this case, surcharge funds are collected as soon as a commitment is made to provide production credits. For example, in 1998 a commitment is made to provide production credits of $20 million per year for 10 years. Thus, $200 million is collected to provide for those production credits. (This example ignores the effects of interest. In reality, less than $200 million would need to be collected, since the funds could be placed in interest-earning accounts until they were distributed.)

The third column illustrates an intermediate option, in which funds are collected partially up-front.

The first option – to collect funds on an as-needed basis – appears to be the simplest option, especially when variation in the time when renewable projects begin production, and variation in the year-to-year energy production from renewable projects is considered. The second and

third options are illustrated, however, due to an important consideration: for the purposes of financing renewable projects, renewable developers must have assurance that the production credit funds will be provided. Such an assurance will extend the effectiveness of surcharge funds, by reducing the financing costs of renewable projects. If sufficient assurances can be provided by other means (for example, a contract-like commitment to provide the production credit funds) then the first option is preferred.

a.12 Does the proposal include a uniform requirement for all electric providers, including utilities, on a statewide basis?

Yes. The surcharge should apply to all California retail electric providers on a nonbypassable basis. If legislation is not enacted by 1/1/98, then the surcharge should be applied initially to all CPUC-jurisdictional retail electric providers, again on a nonbypassable basis.

a.13 What is the time horizon for the program?

Note: Financing of new renewable facilities, which increases competition, may be contingent on an expectation that a market for renewable power will exist for an extended period of time.

The program is proposed to be reviewed in the year 2000. The program should terminate – in terms of new awards to new projects – after the year 2002, when the maximum level of funding would be achieved. This "sunset" provision will not affect the financing of renewable facilities in years preceding the review, since production credits awarded in those years would be guaranteed for a ten-year period to those specific facilities.

a.14 Is the requirement established on a percentage of megawatts or percentage of megawatt-hours basis?

Production credits are proposed to be provided only a per-megawatt-hour basis.

a.15 Does the proposal establish floors for certain technology types?

No.

b. Where Is The Obligation To Comply?

b.1 On whom is the requirement applied? Is the requirement applied only to entities under the Commission's jurisdiction, or is it applied statewide?

The surcharge distributed as a production credit program does not impose a minimum purchase requirement on any entity. Rather than requirements and non-compliance penalties, this proposal provides the production credits as positive incentives for the development of renewable energy. The production credits are funded by a surcharge that should be applied on a nonbypassable basis to all grid-connected end-users in California. If legislation is not enacted by 1/1/98 the Commission should implement a nonbypassable surcharge applied to grid-connected end-users subject to the Commission's jurisdiction.

The surcharge should be applied statewide. Initially, if legislation is not enacted by 1/1/98, the surcharge should be applied by the Commission to entities under its jurisdiction. The

surcharge should be extended by legislation to apply statewide on a nonbypassable basis to all grid-connected end-users.

b.2 Are regulated retail providers treated similarly to unregulated retail providers?

Yes, as long as unregulated retail providers are subject to the nonbypassable surcharge.

b.3 What is the penalty for non-compliance? Should this penalty be interpreted as a cost cap for the program?

As mentioned in the response to question b.1, the surcharge distributed as a production credit program does not involve a penalty for non-compliance. The level of surcharge funds defines the cost cap for the program.

b.4 How is non-compliance determined?

NA.

b.5 What provisions add flexibility to compliance, if any?

NA.

b.6 How does the program ensure that the policy and its costs are nonbypassable, such as the CTC or the Public Goods Charge?

The surcharge for renewable energy is identical in form to the CTC and the Public Goods Charge, except that it should be extended by legislation to apply to all grid-connected end-users throughout the state.

c. How Are Renewable Energy Credits Initially Allocated?

c.1 How are Renewable Energy Credits generated from existing renewable facilities (QFs and utility-owned) initially allocated?

NA.

c.2 What is the relationship of the allocation of renewable energy credits and the CTC or Public Goods surcharge?

NA.

c.3 If customers or ratepayers are initially allocated Renewable Energy Credits, how are the credits administered?

NA.

c.4 How would the proposed Renewable Energy Credit allocation affect negotiations to buy out existing QF contracts? Would it encourage or discourage such buyouts? Would it make them more or less cost-effective to ratepayers?

NA.

c.5 How does the initial allocation deal with the possibility of windfall profits accruing to individual renewables generators, or types of generators?

NA.

c.6 Does the proposal potentially increase the value of utility-owned renewable resources in a way that would encourage their divestiture? If so, how should ratepayer interests be addressed?

Existing utility-owned renewable resources would be eligible for production credits only if they were divested and they made significant new capital investments (see the response to question a.1). As a result, the value of existing assets should be largely unaffected by this proposal, since in essence only the future increment to the asset is eligible for production credits. Thus, this proposal should have little effect on incentives for divestiture.

d. How Is The Program Administered?

d.1 What agency certifies Renewable Energy Credits?

This proposal does not require that generation from every renewable project be certified. Only those new projects which have won an allocation of production credits must have their kilowatt-hour generation and sales to California end-users verified before production credit funds are distributed. This proposal suggests that the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) may be an appropriate independent agency to administer this program, although legislation could designate another agency if that were deemed appropriate.

There are two different responsibilities that the administering agency has under this proposal. The first responsibility is to allocate funds to projects through a simple auction mechanism for the cents-per-kilowatt-hour level of the production credit. The second responsibility is to distribute the surcharge funds in accordance with the production credit level awarded and the amount of energy generated.

CAEATFA is an independent agency that appears to have the necessary expertise and resources to administer this program. Its Board includes the President of the CPUC and the Chair of the California Energy Commission, as well as representing the State Treasurer, Controller, and the Department of Finance. Its administrative staff is within the Department of the Treasurer **[correct title?]**. CAEATFA has experience in financing independent projects, including evaluations of due diligence.

In an initial phase of this program, which may be necessary if legislation is not enacted before January 1, 1998, the Commission would have oversight responsibility for the administration of this program. Administration should be delegated to an appointed board or contracted to an independent party.

d.2 What mechanisms are proposed for trading of Renewable Energy Credits?

NA

d.3 What mechanisms are proposed for program oversight and mid-course corrections?

As described in the response to question d.1, this proposal should be implemented by legislation statewide, and administered by a State agency. If legislation is not enacted by 1/1/98, the Commission would have oversight responsibility. The program should be reviewed in the year 2000 before subsequent allocations of production credits are made.

There are a number of administrative details – such as ensuring that projects that have been awarded a credit allocation are actually proceeding to production (and credit use), or if they are not, re-allocating the credits to a new auction – which should be left to the discretion of the administering agency or board.

d.4 What agency monitors and enforces compliance with the program, and how is it carried out?

As mentioned in the response to question d.1, the California Alternative Energy and Advanced Transportation Financing Authority is suggested as an administrator for this program. Its responsibilities will be (1) to administer the auction, including accepting bids from eligible projects and (2) distributing funds, which involves the verification of renewable kilowatt-hour generation and sales to California end-users from winning bidders.

e. Cost-Related Issues

e.1 What are the costs associated with the program, and who pays?

The surcharge should be applied on a nonbypassable basis to all grid-connected end-users statewide. As mentioned in the response to question a.10, the surcharge is proposed to be 0.6% of 1995 total electric revenues, which is approximately $100 million per year for the investor-owned utilities. If legislation is not enacted by 1/1/98, then initially the surcharge should be applied to all grid-connected end-users under the Commission's jurisdiction. Ultimately, the specific funding limit should be determined by legislative action.

After implementation, program costs and effectiveness can be measured on the basis of the cost-per-kilowatt-hour value of the production credits needed to support new projects.

e.2 What cost-containment measures, if any, are provided?

See the response to question e.1.

e.3 If the program utilizes floors for certain technology types, what are the cost implications?

Floors for technology types are not proposed in this program.

e.4 Will implementation of the program lead to cost-shifting between consumer groups or regions of the state?

No.

e.5 How is competition within and between renewable technologies encouraged?

All renewable technologies compete to receive production credits – which represent the increment above market that renewables need to compete with conventional generation. The competition among renewables means that production credits are awarded only to those renewables that are closest to market.

Between existing renewables facilities and potential new facilities?

Such competition is encouraged by this proposal only to the extent that existing facilities leave existing contracts or leave cost-based or PBR-type regulation and make significant new capital investments. See the response to question a.1.

e.6 What implications, if any, does the proposal have in defining the roles of the LDC and of competitive suppliers of electricity?

None. The proposal is compatible with any number of roles for the LDC and competitive suppliers of electricity.

e.7 What is the consistency of this proposal in relation to cost-related guidance provided by the Commission Roadmap?

The Commission Roadmap Decision did not specify a level of funding. This proposal provides a firm cap on overall costs.

f. How Does The Program Fit With Other Aspects Of Electric Industry Reform?

f.1 Is the program compatible with existence of an Independent System Operator? A Power Exchange? A Direct Access Market? Is the proposal consistent with the Commission's vision of the role of the Power Exchange and ISO?

Yes.

f.2 Is the proposal dependent in any way on the Power Exchange and or ISO? If so, are any additional protocols necessary?

No. Since decisions to build new renewable facilities are left to the market (with the incentive of production credits for new renewable energy), the competitiveness and cost-effectiveness of renewables will be enhanced, of course, by a properly functioning Power Exchange and ISO, as well as by the multiple purchasers provided by a Direct Access market.

f.3 Does the proposal involve conflicts of interest between distribution and competitive retail service?

No.

f.4 How does the program avoid conflicts of jurisdiction between state and federal levels?

State-federal jurisdictional issues are not believed to arise under this proposal.

f.5 What is the relationship between the proposal and Direct Access "Green Marketing"?

This proposal encourages the development of "Green Marketing." Those renewable projects that are best able to sell their attributes – including price stability, as well as environmental benefit – to direct access customers will best be able to compete in the market, and require a lower production credit. Thus, those projects that are best at marketing will be favored to win a production credit allocation in the auction.

f.6 What is the relationship between the proposal and performance based ratemaking (PBR)? Does the proposal place Renewable Energy Credits under PBR, or exclude Renewable Energy Credits from PBR?

This proposal is independent of PBR.

f.7. Does the program create any potential market power problems involving the generation market or Renewable Energy Credits?

No.

f.8. How does the proposal relate to any consumer protection or consumer education efforts? For example,

a) Rules for New Entrants. Does the proposal entail any licensing requirements for new entrants?

No. The only requirement is that renewable projects that wish to be awarded production credits must be determined to be eligible.

b) Consumer Education. Does the proposal require any consumer education? For example, how does the proposal protect consumers from "green marketing" programs where marketers collect twice – once for credit sales and once for "green" power sales, thereby not increasing total green power?

This proposal avoids the specific problem mentioned in the example. This proposal encourages green marketing (see the response to question f.5). At the same time, this proposal requires verification of renewable kilowatt-hours before production credits are provided (see the response to question d.1).

There will still be a need for consumer protection activities. The same renewable kilowatt-hours should not be marketed to two different consumers, for example.

f.9 How, if at all, does the proposal relate to RD&D programs funded by the Public Goods Charge?

This program will help mature renewable technologies become competitive with conventional energy supplies. It will also help emerging technologies become market competitive. Less-mature renewable technologies that nevertheless promise important societal benefits will depend in part on RD&D, energy efficiency, or other public goods funding for their continued development. These other sources of funds can be augmented by the surcharge/production credit funds provided by this program.

f.10 How, if at all, does the proposal relate to energy efficiency programs funded by the Public Goods Charge?

Renewable self-generation, which is not covered by this proposal (see the response to question a.5), may be a component of energy efficiency programs.

f.11 How does this proposal affect the CEQA compliance work recently initiated by the CPUC?

This proposal will lead to development of new renewables. It does not assure that existing renewables will remain in production. Thus, the net effect of the proposal should be estimated and included in the overall impacts of the Commission's proposals.

g. Legislative Requirements

g.1 Can the PUC implement this proposal by itself, or is legislation needed? What is the status of entities not under PUC jurisdiction in this program?

To implement this program on a statewide basis, legislation is required. If legislation is not enacted by 1/1/98, then the PUC should implement this proposal for those entities within its jurisdiction.

As mentioned in the response to question b.1, the surcharge should be applied statewide, to include all electric end-users on a nonbypassable basis. If legislation to extend the program statewide is not enacted by 1/1/98 then the program should be initially implemented for CPUC-jurisdictional entities.

g.2 What steps are needed to implement the program, and how long would it take? How does this implementation timing relate to the Commission's 1998 implementation goal?

1. Minimizes/clearly identifies overall costs: Uniform, statewide funding of program.

2. Meets public policy goals in the short and long run: State agency can focus on projects that produce the public policy goals of improving the environment, conserving resources, meeting societal needs, etc. New, efficient,

environmentally sensitive technology projects receive support, and customer costs are controlled.

3. Uses effective means for long-term success: This collaborative effort, by a diverse group of stakeholders representing environmentalists, independent producers, municipal sanitation districts, and utilities interests will succeed.

4. Has capability for implementation by 1/1/98.

Comments of Orange County, Sonoma County, the City of Sacramento, NEO Corporation

We support this proposal because it is only for new projects and market driven with funds award through a price only auction. Awards are financeable with a 10-year life. It allows participation by emerging technologies or higher priced green power. This is because they can get funds from the WEPEX, this Surcharge Production Credit and additionally, seek tax credits, grants, etc. Renewables that have a distinct regional benefit may get funds from the benefiting enterprise, such as public or private solid waste operations. Technologies can (should) compete by marketing to ratepayers their specific green power.

Comments of the Union of Concerned Scientists

Oppose.
Good points: Exclusion of hydro avoids subsidization of a mature, fully commercialized technology and problems with annual variability.
Bad points: Conceived as an alternative to RPS, but inadequate. Does not maintain existing renewables. Does not guarantee any set level of renewables development. New project awards end after five years. Price-only bid may encourage under-bidding.
Other: Although a renewables surcharge alone is inadequate, as a supplement to an RPS a small, focused charge could help promote a greater diversity of renewables options by leveraging some less mature technologies into the RPS.

Comments of Los Angeles Department of Water and Power (LADWP)

The procurement of renewable resources should be the responsibility of some state entity or the state power pool and the above-market costs of compliance should be borne uniformly by all customers served by the UDC on a non-bypassable basis. Rather than having many entities responsible for procurement of renewables, having one entity responsible for the state's procurement of renewable resources will minimize the transaction costs of compliance. The level and diversity of renewable resource mix should be established by the state legislature. The renewables program should be reviewed every five years or so.

Comments of Southern California Edision

[106 words]

This proposal has many positive points from the public policy perspective and should be considered by the Commission as an alternative to the MRPR mentioned in the Restructuring Decision. This proposal explicitly sets the cost of the program by setting the level of the surcharge. Moreover, this cost is known and visible to customers, regulators, and legislators. The proposal does not provide any additional subsidies to existing facilities but does provide incentives to build a new generation of renewable energy projects. This proposal limits the administrative impact to a small group of market participants and therefore has a low probability of distorting the emerging electricity market.

Commnets of CALSEIA/SEIA/CEC/ETDD

[120 Words]

SUPPORT WITH MODIFICATIONS
Diveristy and Emerging Technologies: Since lowest bid price is only determinant for winning credits, well-established technologies are expected to recieve all credits. Depending on level of funding, diversity, even among low, current-cost, well-established technologies, may be limited. To provide any support for newer, emerging technologies, some portion of the surcharge must be set asside (see CALSEIA proposal). With moditication, surcharge approach provides similar competitive funding process to RD&D process, which is appropriate for technologies transitioning from RD&D to full commercialization.
Credit Contract Term: Ten year term is advantageous, especially for emerging technologies, as it permits ten year project financing. Even longer contract term would allow longer financing amortization resulting in still lower annual costs and lower overall annual program cost.

Comments of the California Integrated Waste Management Board

Oppose: The production credit model by providing ten years of guaranteed prices will result in the construction of a limited amount of new renewable generation.

The proposal ignores the problem that renewables generation technologies cannot presently economically compete with natural gas and hydro-electric power, and that renewables offer a variety of social and environmental benefits.

Would expect that the current level and diversity of renewable generation will decline under this proposal. The bidding process may become subject to "gaming" by bidders, and will tend to reward lower cost technologies and financially stronger bidders.

Comments of Don Augenstein

[102 Words]

The advantage of a surcharge and auction-based proposal such as EDF's is that more renewables can be deployed for a given amount of money, since bidding develops least-cost projects first. Also the fixed premium for 10 years will help financing. However an objection to this EDF, et al. proposal is that the surcharge is too low. At an anticipated $0.02-0.03 cost

for a REC (as some expect) this proposal approach appears likely to fund a fraction of the renewables--possibly less than half--of several other extant proposals. The low surcharge, thus low renewables funding seem a serious disadvantage as it stands.

Comments of SoCAL Gas

[123 Words]

This proposal's major attribute is the clear identification of the cost of the program. This is the only proposal that lets the consumer know the cost of energy diversity up font. It is closely aligned with the CPUC's desire to reduce the cost of electricity in Califomia. The proposal calls for a kWh production credit applied only to energy actually sold. The nonbypassable surcharge is not included as part of investor owned utility rates. The program is relatively simple. It is based on a price-only, first-price auction for a fixed production level for 10 years. It requires no penalties, does not call for the creation of a tradable energy credits market, and has a sunset provision. Of all the proposals, this is best.

Commetns of SDG&E:

Support:

* Promotes new renewables in lieu of funding existing projects that have already received subsidies.
* Cost cap via surcharge limit of $100-125 million for all California.
* Provides stream of payments up to 10 years for new projects; leverages financing.
* Program cost uniformly allocated to consumers statewide.
* Meets goal of providing minimum level of renewables generation.
* Relatively simple to administer by an existing state agency which has the requisite expertise.
* Unbundled surcharge.
* Emerging technologies floor could be accommodated.
* Supported by broad cross section of industry and environmental parties.

Comments of IEP

- Does not address existing renewables.
- In the absence of full direct access, does not provide adequate price signals to sustain competition for the production credits. For example, in the absence of any direct access, the sole purchaser is the utility under a SOl contact, and the price paid to all renewable producers will be the marginal clearing price of the PX. The only variable affecting allocation bids will be the producer's operating costs, which remain relatively fixed over time. The absence of buyer/seller price variability will likely result in a single entity garnering all the production credits.